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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180.00

Complete if Known

Application Number 09/866,463-Conf. #4951
Filing Date May 24, 2001
First Named Inventor Gregory J. Wilson
Examiner Name D. R. Valentine
Art Unit 1742
Attorney Docket No. 291958157US3

METHOD OF PAYMENT (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None

☐ Deposit Account:

Deposit Account Number 50-0665

Deposit Account Name Perkins Coie LLP

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	180.00
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 180.00

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$) 0.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims	Fee from below		Fee Paid
Total Claims	32	-63 =		x	0.00
Independent Claims	3	-7* =		x	0.00
Multiple Dependent					

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple dependent claim, if not paid	
1204	86	2204	43	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$) 0.00

** or number previously paid, if greater; For Reissues, see above

SUBMITTED BY

Name (Print/Type) Steven D. Lawrenz

Registration No. (Attorney/Agent) 37,376

(Complete (if applicable))

Telephone (206) 359-8000

Signature

Date

9/8/2004

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as Express Mail, Airbill No. EV336669254US, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Dated:

9/9/2004

Signature:

Melody Almberg

(Melody Almberg)

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Dated:

9/8/2004

Signature:

Melody A. Limberg
(Melody A. Limberg)

Docket No.: 291958157US3
Client Ref No. P01-0031

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Gregory J. Wilson et al.

Application No.: 09/866,463

Confirmation No.: 4951

Filed: May 24, 2001

Art Unit: 1742

For: TUNING ELECTRODES USED IN A
REACTOR FOR ELECTROCHEMICALLY
PROCESSING A MICROELECTRONIC
WORKPIECE

Examiner: D. R. Valentine

INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

09/13/2004 MBLANCO 00000010 09866463

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180.00 OP

A copy of each reference on the PTO/SB/08 is attached.

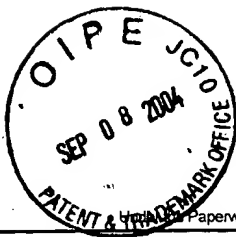
Our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-0665, under Order No. 291958157US3. A duplicate copy of this paper is enclosed.

Dated: 9/8/2004

Respectfully submitted,

By 
Steven D. Lawrenz

Registration No.: 37,376
PERKINS COIE LLP
P.O. Box 1247
Seattle, Washington 98111-1247
(206) 359-8000
(206) 359-7198 (Fax)
Attorney for Applicant



PTO/SB/08a/b (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

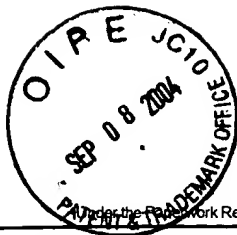
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	09/866,463-Conf. #4951
				Filing Date	May 24, 2001
				First Named Inventor	Gregory J. Wilson
				Art Unit	1742
				Examiner Name	D. R. Valentine
Sheet	1	of	2	Attorney Docket Number	291958157US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
		CA-873651	06/1971	Cronin, DC		
		DE-41 14 427	11-05-1992	Moritz, Heiko		
		DE-195 25 666	10-02-1996	Huebsch et al.		
		EP-0452939 B1	11-02-2000	Applied Materials, Inc.		
		EP-0047132 B1	07-03-1985	Heraeus Quarzschmelze		
		EP-0 677 612 A2	10-18-1995	Kimberly-Clark Corp.		
		EP-0 982 771 A1	08-17-1999	Lucent Technologies, Inc.		
		EP-0 257 670	03-02-1988	Estham et al.		
		EP-0 290 210	11-09-1988	Oki Electric Industry Co.		
		EP-0 881 673 A2	05-08-1998	Intl Business Machines Corp		
		EP-0582019 B1	10-18-1995	Intl Business Machines		
		EP-0 677 612 A3	10-18-1985	Kimberly-Clark Corp		
		EP-0544311 B1	05-15-1996	Dainippon Screen Mfg. Co. Ltd		
		EP-0 140 404 A1	08-16-1984	The Proctor & Gamble Co.		
		EP-1 069 213 A2	07-11-2000	Applied Materials Inc.		
		GB-2217107A	03-23-1989	Canon Kabushiki Kaisha		
		GB-2 279 372A	06-23-1994	Kimberly-Clark Corp.		
		GB-2 254 288 A	03-24-1992	Scapa Group Pic		
		JP-1048442	02-22-1989	Texas Instru Japan		
		JP-5146984	06-15-1993	Murata Mach Ltd.		
		JP-4144150	05-18-1992	Oki Electric Ind Co Ltd		
		JP-5211224	08-20-1993	Texan Instr Japan		
		JP-10-083960	03-31-1998	Takashi		
		WO-99/40615	08-12-1999	Ritzdorf et al.		
		WO-00/61837	10-19-2000	Wilson et al.		
		WO-91/04213	04-04-1991	Wong et al.		
		WO-95/20064	07-27-1995	Berg		
		WO-99/41434	08-19-1999	ACM Research, Inc.		
		WO-02/97165	12-05-2002	Semitool, Inc.		
		WO-01/90434	11-29-2001	Semitool, Inc.		
		WO-00/03072	01-20-2000	Woodruff et al.		
		WO-99/25905	05-27-1999	Patton et al.		
		WO-00/02675	01-02-2000	Semitool, Inc.		
		WO-99/25904	05-27-1999	Reid et al.		
		WO-02/045476	06-13-2002	Semitool, Inc.		
		WO-95/06326	03-02-1995	Semitool, Inc.		
		WO-00/61498	10-19-2000	Wilson et al.		
		WO-00/02808 A1	01-20-2000	Semitool, Inc.		
		WO-02/99165	12-12-2002	Semitool, Inc.		
Examiner Signature				Date Considered		



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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				Filing Date	May 24, 2001
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				Art Unit	1742
				Examiner Name	D. R. Valentine
Sheet	2	of	2	Attorney Docket Number	291958157US3

	WO-99/45745	09-10-1999	Armstrong et al.	
	WO-00/32835	06-08-2000	Dordi et al.	
	WO-90/00476	01-25-1990	Tuckerman	
	WO-99/16936	04-08-1996	Semitool, Inc.	
	WO-01/91163	11-29-2001	Semitool, Inc.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
		CONTOLINI ET AL., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," VMIC Conference 1995 ISMIC - 04/95/0322, pgs 322-328, June 17-29, 1995		
		DEVARAJ et al., "Pulsed Electrodeposition of Copper," Plating & Surface Finishing, Pgs 72-78, August 1992		
		DUBIN, "Copper Plating Techniques for ULSI Metallization," Advanced MicroDevices		
		DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," Advanced MicroDevices		
		GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," J. of Electrochemical Society, Vol 99, pgs 71-75, February 1952		
		LEE, Tien-Yu Tom et al., "Application of a CFD Tool in Designing a Fountain Plating Cell for Uniform Bump Plating of Semiconductor Wafers," IEEE Transactions on Components, Packaging and Manufacturing Technology, February 1996, pp 131-137, Vol 19, No. 1		
		LOWENHEIM, F.A., "Electroplating," Jan 1979, 12 pgs, McGraw-Hill Book Company		
		LOWENHEIM, Frederick A., "Electroplating Electrochemistry Applied to Electroplating," 1978, pp 152-155, McGraw-Hill Book Company, New York		
		OSERO, N.M., "An Overview of Pulse Plating," Plating and Surface Finishing, March 1986		
		PASSAL, F., "Copper Plating During the Last Fifty Years," Plating, pgs 628-638, June 1959		
		PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sept 19, 1989		
		PATENT ABSTRACT OF JAPAN, "Plating Method" Publication No. 57171690, Publication Date: October 22, 1982		
		SINGER, P., "Copper Goes Mainstream: Low k to Follow," Semiconductor International, pgs 67-70, November 1997		

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¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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